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Anil Vasudevan

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EXAMINER

BAROT, BHARAT

ART UNIT

PAPER NUMBER

2455

MAIL DATE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

### Application No.

09/893,888

### Applicant(s)

VASUDEVAN, ANIL

### Examiner

Bharat N. Barot

### Art Unit

2455

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 July 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-16 and 18-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 and 18-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

**RESPONSE TO AMENDMENT**

1. Claims 1-16 and 18-24 remain for further examination.

**The old rejection maintained**

2. Applicants' amendments and arguments with respect to claims 1-16 and 18-24 filed on July 14, 2009 have been fully considered but they are not deemed to be persuasive for the claims 1-16 and 18-24. The rejection is respectfully maintained as set forth in the last Office Action mailed on May 13, 2009.

**Claim Rejections - 35 USC § 103(a)**

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-16 and 18-24 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Takamoto et al (U.S. Patent No. 6,470,391) in view of Dillon (U.S. Patent No. 6,671,741).

5. As to claim 1, Takamoto et al teach a method of transferring data packets between a server environment and a client (abstract, summary of the invention; and

figures 1-4 and 12), the method comprising: receiving, at network driver device (communication controller), a data packet transmitted from a stack (host) in the server environment; transmitting, by the network driver device, the data packet across an I/O bus in the server environment to the client (figures 1-4 and 12, column 7 line 1 to column 8 line 15, and column 10 lines 8-39).

However, Takamoto et al do not teach that sending, from the network driver device, an acknowledgment packet to the stack without sending the acknowledgment packet across an I/O bus.

Dillon teaches a method of transferring data packets between a server environment and a client (figures 1-2, and columns 4-5), the method comprising sending, from the network driver device (gateway), an acknowledgment packet to the stack (application server) without sending the acknowledgment packet across an I/O bus; and after sending the acknowledgement packet, transmitting, by the network driver device, the data packet across the I/O bus in the server environment to the client (terminal) (figures 12 and 13d, column 14 lines 1-41, and column 14 line to column 15 line 27).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Dillon stated above in the method of Takamoto et al for transferring data packets between a server environment and a client because it would have increased the round-trip propagation time, and also reduced the propagation delay by providing fast links.

6. As to claim 2, Takamoto et al disclose that the data packets comprise TCP/IP data packets (column 2 lines 3-57); Dillon also discloses that the data packets comprise TCP/IP data packets (see abstract, and column 5 lines 4-13).

7. As to claim 3, Dillon teaches that storing information regarding the transmitted data packet in a network interface card (figures 13a-13b, column 14 lines 42-54, and column 16 lines 49-58).

8. As to claim 4, Takamoto et al teach that transmitting the data packet across a network from the server environment to the client (figures 3-4; and column 7 line 37 to column 8 line 15).

9. As to claims 5-7, Takamoto et al teach that the network interface card monitoring acknowledgment packets regarding the data packet from the client/server; recognizing an error condition at the network interface card if the acknowledgment packet regarding the transmitted data packet is not received from the client; and transmitting an indication of the error condition across the I/O bus (figures 12 and 13c-13e, column 14 lines 1-26, column 14 line 55 to column 15 line 46, and column 16 lines 49-58).

10. As to claims 8-14, they are also rejected for the same reasons set forth to rejecting claims 1-7 above, since the claims 8-14 do not teach or define any new limitations than above claims 1-7.

11. As to claims 15-16 and 18-21, they are also rejected for the same reasons set forth to rejecting claims 1-7 above, since claims 15-16 and 18-21 are merely an apparatus for the method of operation defined in the method claims 1-7.

Additionally, Takamoto et al disclose (claim 15) a server comprising: an operating system having a stack mechanism (host) and a driver mechanism (communication controller); a network interface card (bus/communication interface) comprising a memory storing information related to a data packet; and a I/O bus coupled between the operating system and the network interface card (figures 1, 8, 11, and 23, column 5 line 59 to column 67 line 32, column 8 line 60 to column 9 line 13, column 9 line 47 to column 10 line 7, and column 15 lines 18-35).

**Claim Rejections - 35 USC § 102(e)**

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --  
(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

13. Claims 22-24 are rejected under 35 U.S.C. 102 (e) as being anticipated by Dillon (U.S. Patent No. 6,671,741). Dillon's patent meets all the limitations for claims 22-24 recited in the claimed invention.

14. As to claim 22, Dillon discloses a network interface card in a server environment (column 16 lines 49-58, network interface card associated with a wireless communication unit and a computing unit) comprising: a mechanism (gateway) to communicate across an I/O bus in the server environment so as to receive data packets from a network drive mechanism (communicate with an application server, figure 12, column 14 lines 1-41); a memory device to store information regarding the received data packets (figures 13a-13b, and column 14 lines 42-54) and store a data structure containing connection information with a number of fake acknowledgement packets generated by the network drive mechanism (figures 13s, and column 14); and a mechanism (gateway) to communicate across a network so as to transmit the received data packets to a remote system and to receive an acknowledgment packet from the remote system across the network (communicate with a remote terminal, figures 1-2 and 13c-13d, column 14 lines 17-41, and column 14 line 55 to column 15 line 46).

15. As to claim 23, Dillon discloses that an error indicating mechanism to recognize an error condition if a negative acknowledgment packet regarding the data packet transmitted across the network is received from the remote system (figures 12 and 13c-13e, column 14 lines 1-26, and column 14 line 55 to column 15 line 46).

16. As to claim 24, Dillon discloses that the data packets comprise TCP/IP data packets (see abstract, and column 5 lines 4-13).

### **Response to Arguments**

17. Applicant's arguments with respect to claims 1-16 and 18-24 filed on July 14, 2009 have been fully considered but they are not deemed to be persuasive for the claims 1-16 and 18-24.

In the remarks, the applicant argues that:

**(A) Argument:** Dillon does not teach sending, from the network driver device, and acknowledgment packet to the stack mechanism without sending the acknowledgement packet across an I/O bus.

**Response:** Dillon teaches that sending, from the network driver device (gateway), an acknowledgment packet to the stack (application server) without sending the acknowledgment packet across an I/O bus (short propagation); and after sending the acknowledgement packet, transmitting, by the network driver device, the data packet across the I/O bus in the server environment to the client (terminal) (long propagation) (figures 12 and 13d, column 14 lines 1-41, and column 14 line to column 15 line 27).

**(B) Argument:** Neither Takamoto nor Dillon teaches that the driver mechanism is connected between the stack mechanism and an I/O bus in the server.



**Response:** Takamoto teaches that the driver mechanism (control processor) is connected between the stack mechanism (control memory) and an I/O bus (data/control bus) in the server (communication controller) (figure 1); and Dillon teaches that the driver mechanism is connected between the stack mechanism (application server) and an I/O bus network/Internet) in the server (Hybrid Terminal) (figures 1 and 12).

**(C) Argument:** Dillon does not disclose a network interface card in a server environment as recited in claim 22.

**Response:** Dillon discloses a network interface card in a server environment as recited in claim 22 (see figures 2 and 6, column 6 lines 12-15, column 7 lines 10-20, and column 16 lines 49-58, network interface card associated with a wireless communication unit and a computing unit ).

18. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

**Contact Information**

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Bharat Barot** whose Telephone Number is **(571) 272-3979**. The examiner can normally be reached on Monday-Friday from 7:00 AM to 3:30 PM. Most facsimile-transmitted patent application related correspondence is required to be sent to the Central FAX Number **(571) 273-8300**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Saleh Najjar**, can be reached at **(571) 272-4006**.

/Bharat N Barot/

Primary Examiner, Art Unit 2455

October 28, 2009